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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,709	12/02/2003	Keith Eric Neuendorff	CIS0015C1US	4737

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EXAMINER
LEVITAN, DMITRY

ART UNIT	PAPER NUMBER
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)
	10/725,709	NEUENDORFF ET AL.
	Examiner	Art Unit
	Dmitry Levitan	2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _02 December 2003_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under _Ex parte Quayle_, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _18-47_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _18-47_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _03 December 2003_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

Preliminary amendment, filed 12/02/03, has been entered. Claims 18-47 remain pending.

Claim Rejections - 35 USC § 101

1.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 44-47 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. "A machine readable medium <u>having</u> a plurality of instructions executable by a machine..." is non-statutory matter.

See Interim Guidelines for examination of patent applications for patent subject matter eligibility, pages 50-54.

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2.   Claims 18-47 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 18, 30, 40 and 44 limitations, directed to "a node of said plurality of nodes on which data associated with said each of said plurality of nodes is added/dropped to/from said network", is unclear, because it is not understood what is added/dropped to/from the network, a node or associated data.

Claim 18 limitations, directed to indicating a format of data on said network, are unclear

because it is not understood what data format should be indicated: format of first data or format

of the data communications between the network nodes.

Both, fist data and the network communication data, are data on network and can utilize different

formats, making these limitations of claim 18 indefinite.

Claims 21, 31, 41 and 45 recite the limitation "said data" in line 1. There is insufficient

antecedent basis for this limitation in the claim, as it is unclear if said data is directed to first

data, second data or both.

Claims 27 and 37 limitations, directed to "for each data bucket identifying at least one of

said plurality of nodes on which said each data bucket is added to the network, and/or at least

one of said plurality of nodes on which said each data bucket is dropped from the network" is

unclear, because is not understood how a data bucket can be added or dropped to/from the

network. It is understood, that nodes and links can be added or dropped to/from networks, but

not "data buckets".

Other claims are rejected as the claims dependent on 18, 30, 40 and 44.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on
sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 18-23, 28-33, 38, 39 and 44-47 are rejected under 35 U.S.C. 102(b) as being

anticipated by Aho (US 5,408,618).

5.   Regarding claims 18, 19, 30 and 44, Aho teaches a method, an apparatus and a computer

program (network 100 on Fig. 1, comprising a plurality of nodes and interconnected with links

4:36-5:20), comprising:

means for identifying a plurality of nodes of a network, wherein said plurality of nodes

are interconnected by one or more links (Automatic Configuration Mechanism 245 in each node

to obtain configuration information from each node of network 100, as shown on Fig. 2 and

5:20-6:17); and

means for executing one or more tasks within each of said plurality of nodes to generate

(central processing unit in each node, as shown on Fig.2, generates configuration information on

informer node, Public Query Message, to inform the other nodes on the informer node, which

has been added to the network, shown on Fig. 6 and 7, and disclosed on 9:37-10:50):

first data identifying at least one of,

a node of said plurality of nodes on which data associated with said each of said plurality

of nodes is added to said network (informer node system name and type, shown on Fig. 7 and

10:14-23), and

a node of said plurality of nodes on which data associated with said each of said plurality

of nodes is dropped from said network, and

second data indicating a format of data on said one or more links (configuration information 770,

as shown on Fig. 7, and providing information to all nodes of the network on the network on the

informer node connections 10:23-56, as shown on the connection list 250 on Fig. 8B, including

the capability list, identifying the formats of the data for the informer node 12:24-35, therefore

inherently identifying the data format on the links connecting the informer node to the network,

because the informer node is receiving the network data through the corresponding links).

6.   Regarding claim 21, 31 and 45 (as best understood), Aho teaches distributing the

informer node information to all nodes of the network, therefore all nodes receive the

information 9:64-10:1 and all node transmit their information on start up 3:10-20.

7.   Regarding claims 22 and 32, Aho teaches the central processor to query/request the other

nodes about their configuration information 3:10-57, wherein the configuration information

inherently comprises responses from only active/operational nodes including the nodes

identification, identifying the nodes dropped from the network and the nodes added to the

network, as shown on Fig. 5 and 8:21-65.

8.   Regarding claims 20, 23 and 33, Aho teaches generating and requesting connection list

250 on Fig. 8B, including the capability list, identifying the formats of the data for the informer

node 12:24-35, therefore inherently identifying the data format on the links connecting the

informer node to the network, because the informer node is receiving the network data through

the corresponding links.

9.   Regarding claims 28, 29, 38 and 39, Aho teaches creating a path list as a portion of the

ACM network monitoring 3:10-57 before a failure and utilize the path list on a link failure to

chose an alternate path to the failed link, as disclosed on 12:36-13:7.

10.   Regarding claims 46 and 47, Aho teaches the processor to query/request the other nodes

about their configuration information 3:10-57, wherein the configuration information inherently

comprises responses from only active/operational nodes including the nodes identification and

their logical links information, identifying the nodes dropped from the network or nodes added to

the network, including their corresponding links, as shown on Fig. 5 and 8:21-65.

Claim Rejections - 35 USC § 103

11.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

12.   Claims 40-43 are rejected (as best understood) under 35 U.S.C. 103(a) as being

unpatentable over Aho.

13.   Regarding claim 40, Aho substantially teaches the limitations of claim 40 (see claims 18,

30 and 44 rejection above), including interface to couple the node to the network and control

processor, as shown on Fig. 2 and 5:20-35. Aho also teach sending query messages to the

network to request and receive configuration information from target nodes 3:20-35.

        Aho does not teach control processor to perform timing communications.

Official notice is taken that timing of query messages is well known and expected in the art, as

the timing window is provided to receive a response to the query message.

        It would have been obvious to one of ordinary skill in the art at the time the invention

was made to add performing timing operation to the processor in the system of Aho to improve

the system performance to avoid undefined state of the processor, if the response message to the

query is lost.

14.   Regarding claim 41 (as best understood), Aho teaches distributing the informer node

information to all nodes of the network, therefore all nodes receive the information 9:64-10:1

and all node transmit their information on start up 3:10-20.

15.   Regarding claims 42 and 43, Aho teaches the processor to query/request the other nodes

about their configuration information 3:10-57, wherein the configuration information inherently

comprises responses from only active/operational nodes including the nodes identification and

their logical links information, identifying the nodes dropped from the network or nodes added to

the network, including their corresponding links, as shown on Fig. 5 and 8:21-65.

16.   Claims 24 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aho.

Aho substantially teaches the limitations of claims (see claims 18, 19, 23, 30, 31 and 33

rejections above), including requesting a path list to identify paths as shown on Fig. 8C and

12:36-66.

Aho does not teach using synchronous transport and its module types on the network of Fig. 1.

        Official notice is taken that SONET transport method and SONET signaling hierarchy,

including OC and STS level types are well known in the art.

        It would have been obvious to one of ordinary skill in the art at the time the invention

was made to add using SONET transport method in the network of Aho and requesting STS,

SONET transport modules to the system of Aho to improve the system compatibility with

numerous existing devices utilizing SONET standard and identifying the network paths

according to the widely used SONET standard module types.

17.   Claims 25, 27, 35 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Aho in view of Taniguchi (US 6,122,250) and Black (TCP/IP and related protocols, McGraw-

Hill, 1998, pages 1, 2 and 166-169).

Aho substantially teaches the limitations of claims (see claims 18-20, 30 and 31

rejections above), including token rings, as shown on Fig. 1 and using TCP/IP protocol on the

network 5:12-20, inherently identifying the TCP end nodes, because specifying end-to-end

transmission nodes is essential for TCP operation.

Aho does not teach using squelch operation and utilizing TCP retransmission feature.

Taniguchi teaches using squelch operation to avoid misconnection of the failed ring in

case of failure (Abstract).

Black teaches dividing data in segments and retransmitting it according to the predefined

intervals utilized in TCP timers, as basic TCP features on pages 167-169.

It would have been obvious to one of ordinary skill in the art at the time the invention

was made to add using squelch operation to avoid misconnection of the failed ring of Taniguchi

and dividing data in segments and retransmitting it according to the predefined intervals of Black

to the system of Aho to improve the system handling the ring failure to avoid misconnections

and utilizing TCP features to improve reliability of the communications on the network.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The

examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dmitry Levitan
Primary Examiner
Art Unit 2616